



#### **Final Comprehensive Procurement Guideline Issued**

overnment purchasing has turned a deeper shade of green. From floor tiles to engine coolant, federal agencies are in the market for recycled content products in a bigger way than ever before. The impetus behind this intensified buy-recycled focus was the May 1, 1995, publication of the final Comprehensive Guideline for Procurement of Products Containing Recovered Materials (CPG) and its companion piece, the Recovered Materials Advisory Notice (RMAN).

The CPG designates 19 recycled-content products in six product categories for which (Continued on page 11)

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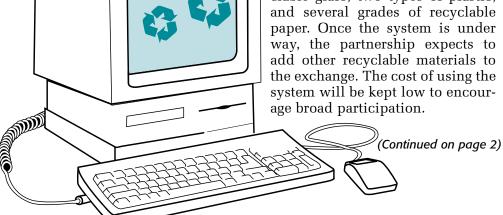
Paper-Less Campaign • Bulk Mail Recycling • Cooperative Recycling in Brazil • Hollywood Studio Spotlights Waste Reduction • Unit Pricing and Full Cost Accounting Forum WasteWi\$e Update • Resources · Design Today To Recycle Tomorrow

### **CBOT Recyclables Exchange To Link Nation's Traders**

small community wants to find a reliable buyer for the plastic milk jugs it collects at curbside each week. A few miles away, a manufacturer struggles to find a steady supply of postconsumer high density polyethylene (HDPE) to use as raw materials in the detergent bottles it produces. If only the two could

Soon they will. With support from EPA, the Chicago Board of Trade (CBOT) Recycling Exchange partners are working to link buyers and sellers of recyclables nationwide on an electronic bulletin board. Participants (such as municipalities, haulers, materials recovery facilities, recycling centers, reclaimers, brokers, and manufacturers) will be able to sign on to a CBOT host computer via a personal computer and modem. Here, they will be able to post and peruse information on recyclables' specifications, terms, quantities, and location of materials. As a result, buyers and sellers will be able to make contact, and recyclables will be traded more readily, much like any other commodity.

Initially, the CBOT program will facilitate the exchange of recyclable glass, two types of plastic, age broad participation.



## **Recyclables Exchange Links Nation's Traders**

(Continued from page 1)



using standardized inspection procedures. With extensive input from suppliers, processors, and endusers, the partnership has been developing a list of product attributes, such as color and materials content, that participants can use to describe recovered materials traded on the exchange. These product attributes will reflect existing quality standards and industry practices.

The system also will provide reliable information about the prices paid for recyclable commodities, which will help end-users and suppliers make investment and program decisions for the future. The system will generate real price information based on actual transactions to assure buyers and sellers that they are paying and receiving fair market value for quality materials.

Additionally, the system will provide a neutral process for settling disputes between buyers and sellers. When two parties agree to register a trade using the CBOT system, they agree to participate in dispute resolution and product quality evaluation processes if necessary. If the parties are unable to resolve a dispute, they can use the CBOT arbitration process, as well as a third-party, independent laboratory to conduct inspection, sampling, and testing of the materials.

CBOT Chairman Patrick H. Arbor explains that "the CBOT brings a long history of helping markets work better for buyers, sellers, and intermediaries. Recovered materials are a

natural extension of our role as a central marketplace, and this program further demonstrates how free markets can provide answers to society's problems."

The trading system launch date is now scheduled for October 17, 1995.

For more information, call Linda Shotwell of NRC at 703 683-9025, or Jeff Campbell of CBOT at 312 341-7264.

he CBOT Partnership has organized a series of orientation and training workshops specifically designed for future users of the CBOT recyclables exchange. Following is a list of cities where the workshops will be held:

Kansas City, MO	9/10/95	Philadelphia, PA	10/10/95
Seattle, WA	9/19/95	Boston, MA	10/11/95
San Francisco, CA	9/20/95	Cincinnati, OH	10/12/95
Los Angeles, CA	9/21/95	Chicago, IL	10/16/95
Dallas, TX	9/29/95	Syracuse, NY	10/18/95
Atlanta, GA	10/05/95	Keystone, CO	10/22/95
Orlando, FL	10/06/95	Akron, OH	11/03/95

For more information, call Chris Benjamin at the National Recycling Coalition—703 683-9025.

#### What Is CBOT?



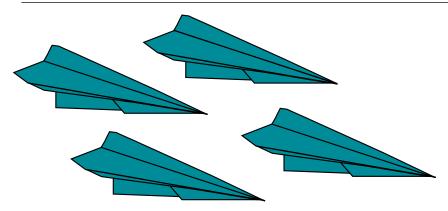
#### Chicago Board of Trade

group of farmers and agricultural merchants who needed a better organized and more reliable mechanism for buying and selling grain established CBOT in 1848. CBOT established standard grades and measures for agricultural commodities such as wheat, corn, and soybeans, as well as rules defining equitable trade.

CBOT's work evolved into futures contracts, which are standardized agreements to buy or sell something in the future at a price agreed upon now. (Futures markets allow buyers and sellers to keep prices at a fixed rate to avoid price increases in the future.) In 1975, CBOT expanded from trading agricultural contracts to financial contracts, such as U.S. Treasury bond futures, and is now the largest cash exchange in the world. CBOT also developed a project with EPA to trade industrial air emissions credits, as part of the Clean Air Act.

### The CBOT Recycling Exchange partners include:

- The Chicago Board of Trade
- The National Recycling Coalition's Recycling Advisory Council
- Washington State's Clean Washington Center
- The New York State Office of Recycling Market Development
- The U.S. Environmental Protection Agency



# Paper-Less Campaign Builds on Success

ast year, EPA employees nationwide used almost 25 million fewer sheets of paper than they did in 1993. That's about 130 tons of paper—enough to fill 200 midsize pickup trucks. And by reducing paper use, EPA saved nearly \$100,000 over the past year in paper purchasing costs alone.

These achievements are among the many successes of EPA's Paper-Less Office Campaign—an Agencywide effort launched in April of 1994 to make paper waste reduction a top priority.

Over the past year, agency employees have analyzed their work practices and program activities to identify opportunities to cut back on paper use. They adopted various "paper wise" strategies, such as copying on two sides of a sheet, routing and posting memos, purging mailing lists, and using electronic rather than paper formats whenever possible.

The following are just a few of many Paper-Less Office Campaign success stories:

- Agencywide copier paper use has dropped by 20 percent.
- Two EPA regions set photocopy machines to automatically default to double-sided copying.
- The Office of Water pared down its newsletter mailing list from 900 to 300 names by eliminating duplicates and old names.

- A division of the Office of Congressional Affairs started transmitting draft copies of testimony electronically and filing final copies on diskette rather than in paper files.
- The Office of Solid Waste and Emergency Response electronically distributed reports on the 1994 flooding in the Southeast, saving at least 2,400 hard copies in Georgia alone.
- EPA Region 5 (IL, IN, MI, MN, OH, WI) saved 54,000 sheets of paper by distributing allemployee memos electronically rather than on paper.

Building on this success, in 1995 the Paper-Less Office Campaign is focusing on increasing employee use of electronic communication techniques such as electronic mail and computer networks. Employees will receive computer training and more documents will be distributed through the Internet. Campaign managers are also administering the campaign in a paper-less way as much as possible. They developed a senior management briefing and presented it onscreen rather than on paper. The campaign's success has prompted other federal agencies, such as NASA and the Government Printing Office, to inquire about borrowing campaign themes and materials.

For more information about the Paper-Less Office Campaign, call Mia Zmud of EPA at 703 308-7263.

Thanks to you, all sorts of everyday products are being made from the paper, plastic, metal and glass that you've been recycling. But to keep recycling working to help protect the environment, you need to buy those products. BUY RECYCLED. So look for products made from recycled materials, and buy them. It would mean the world to all of us. For a free brochure, write Buy Recycled, Environmental Defense Fund, 257 Park Ave. South, New York, NY 10010, or call 1-800-CALL-EDF.

### Bulk Mail Recycling Gets Stamp of Approval

ou're under a time crunch to get a mailing out. Many of your contacts haven't updated their addresses for several years, but you decide to send out the letters anyway. A few weeks later, you discover many of your letters never reached their destination because of wrong addresses. Where did those letters end up, you wonder?

With help from EPA and others, the United States Postal Service recently launched a major initiative to reduce and recycle the more than five billion pieces of undeliverable bulk business mail (UBBM) that result from improper addressing or other mixups each year. Under the program, the nation's 35,000 local post offices will soon begin segregating their UBBM for recycling. Post offices also will continue working with local mailers to pre-

vent waste by maximizing the deliverability of second- and third-class mail.

Although the program is not mandated, all local facilities are expected to participate. In a recent survey, the Postal Service found that several undeliverable mail recycling programs already operating in cities across the nation are avoiding \$1.4 million in annual disposal costs. The Postal Service estimates that it could save more than \$16 million annually in avoided disposal costs if all of its undeliverable mail was recycled.

To advance the Postal Service's efforts to recycle undeliverable mail and increase the effectiveness of bulk business mail delivery, a National Task Force has been established to:

- Facilitate the onsite collection of undeliverable mail for recycling at local post offices nationwide.
- Create a national database to support the development of local and area-wide undeliverable mail recycling programs.
- Work with local and national direct mailers to help them better maintain their mailing lists.
   The Postal Service plans to

expand its customer education program concerning proper address requirements and encourage all third-class mailers to use the National Change of Address program—a computerized mailing list software that automatically updates old addresses. In addition, the Postal Service plans to solicit ideas from Postmasters across the country on how to help mailers increase the deliverability of direct marketing mail.

■ Initiate back-haul programs whereby Postal Service trucks drop off regular mail at local post offices and then load empty trucks with undeliverable mail for transport back to regional offices for recycling. Back-hauling is cost-effective because the collection and transportation infrastructure is already in place, and additional labor is not normally required.

The Task Force is also exploring the option of allowing postal patrons to bring discarded mail from their homes to local post offices for recycling. Task Force members include EPA, the American Forest and Paper Association, the Direct Marketing Association, and several major paper companies and brokers.

Many paper mills (approximately 33 percent nationwide) now accept discarded mail as recycled feedstock. Several mills have pledged to do business directly with the Postal Service because undeliverable mail is usually cleaner than paper recovered by municipal solid waste recycling programs. For purposes of its Comprehensive Procurement Guidelines (see article on page 1), EPA considers UBBM as "postconsumer recovered paper."

For more information about the Postal Service's National Task Force on undeliverable bulk business mail recycling, contact Charles Vidich of the United States Postal Service at 203 285-7254.

# What Is Undeliverable Bulk Business Mail?

ndeliverable bulk business mail is second- and third-class business mail that can't be delivered or does not reach its destination. It includes magazines, pamphlets, flyers, catalogues, and business



letters and postcards. Mail can be "undeliverable" for a variety of reasons, including improper and vacant addresses, excess pieces, and timeliness of dated information on sales or for coupons. The nation's post offices generate more than 600,000 tons of undeliverable bulk mail every year.

Cooperative Recyclin in Brazil

ecycling is alive and well in the densely populated cities of Brazil. The bulk of the country's municipal recycling collection, however, does not take place at curbside. A majority of materials are collected by individuals who cull paper, cans, and other materials from dumps or go house to house retrieving scrap materials.

These individuals—known as catadores in Portuguese—collect more recyclables than all municipal curbside collection programs in Brazil combined. The official curbside recycling program in the city of Curitiba, for example, collects 800 tons of recyclables a month at a cost of \$180 per ton, while local catadores collect over 3,000 tons a month at no direct cost to the city.

Compromisso Empresarial Para Reciclagem (CEMPRE), the Brazilian Recycling Commitment, is a nonprofit group helping to organize catadores into recycling business cooperatives. In doing so, CEMPRE hopes to better the catadores' position in Brazilian society, increase the national recycling rate, and create economies of scale.

According to CEMPRE, the catadores' free market approach is more economical than Brazil's government-run curbside collection programs, and cooperatives enable members to sell to larger dealers at higher prices. The few catadore cooperatives that already exist have demonstrated great success. In Sao Paulo, for example, members of a cooperative formed in 1989 now receive 40 percent more money than they would have earned on their own.

Brazilian industry representatives interested in recycling founded CEMPRE in 1992. The organization was built on the notion that companies can play a leading role in Brazilian environmental protection. Members include multinational consumer products companies, recyclers, and waste haulers—all committed to meeting Brazil's unique solid waste challenges as a large, urban, developing nation.

To inform the catadores about the benefits and logistics of organizing into recycling cooperatives, CEMPRE is distributing educational kits throughout Brazil. The kits include mostly visual media, such as videos, flip charts, and comic book-style leaflets. Developing nations, including South Africa and India, have expressed an interest in adapting the educational kits for use in their respective countries to create similar cooperatives.

Local religious groups are working with CEMPRE to distribute the educational kits and conduct courses using the materials. The first course was completed last year in the city of Belo Horizonte. The city's Cleaning Authority, in conjunction with the Catholic Archdiocese, ran the course over a one-month period. Catadores attended 10 classes, learning about topics from health care for workers to the basics of running a

cooperative. In addition, the class visited Belo Horizonte's composting plant and sanitary landfill.

Christopher Wells, executive director of CEMPRE, said the success of the course demonstrates that catadores "can both expand their awareness of their role in society and boost their incomes. It's a win-win situation."

CEMPRE has completed many other projects to promote recycling in Brazil, including developing a series of recycling handbooks. CEMPRE also has sponsored a database of solid waste documents, worked to standardize packaging symbols, and conducted studies of municipal recycling programs. The organization is continuing its efforts by developing a decision-makers' guide to solid waste management in Brazil, which will be distributed to every mayor in the country. CEMPRE bases some of its publications on documents produced by EPA and others in the United States.

For more information, contact Christopher Wells of CEMPRE by fax at 011-55-21-553-5760.

# Jt's a Wrap: HOLLYWOOD ST WASTE REDUCT

aste reduction is taking center stage these days at a number of major Hollywood motion picture and television studios. Sony Pictures Entertainment in Culver City, California, is one studio that has devised some innovative ways to reduce and reuse the scripts, sets, and scrap film that remain after the floodlights dim and the cameras cut.

The company, which produces and distributes motion pictures, TV shows, and home videos, first began to integrate waste reduction principles into its day-to-day activities in 1991. These efforts led to a comprehensive, companywide program that includes a variety of waste prevention, recycling, and buy-recycled initiatives.

The success of this program is due in part to a Green Team made up of more than 80 employee volunteers from a variety of company departments. The team helps educate employees and improve participation in waste reduction activities, and also provides a



Sony Pictures' recycling team strikes a pose with the Green Machine—a refurbished 1953 Chevy truck used to collect recyclable materials throughout the studio.

mechanism for communicating the accomplishments being made.

"We've made great progress over the past three years in our environmental program by getting our employees involved, and making it easy and rewarding for everyone to participate," says Rosanne Feild, Director of Corporate Safety and Loss Control.

Sony Pictures has taken great strides toward preventing and recy-

### Film Recycling Gets Reel

ony Pictures Releasing, the domestic theatrical distribution arm of the Columbia TriStar Motion Picture Companies, is the first such company to launch a film trailer reuse/recycling program. "Trailers" are the film previews shown before the main feature at a movie theater.

Instead of discarding Sony Pictures' used trailers after only a few months of use, movie theaters can now ship them to National Screen Service—a company that distributes motion picture trailers. National Screen accepts Sony Pictures' used trailers from first-run theater chains and redistributes them to discount and "second-run" theaters for addi-

tional screenings. National Screen Service has set up an "Authorized Return Service" with UPS to provide labels for the shipments.

Trailers too worn to redistribute are sent by the distributors to the Film Processing Corporation (FPC), a film recycling company owned by the Eastman Kodak Company. FPC also recycles full-length movie prints discarded from the 26,000 movie theaters currently operating nationwide. FPC recycles a total of about 10 million pounds (more than 300,000 miles) of used film each year.

Most waste film is either transformed and reused as different film products, recycled into new plastic film base, or used as fuel in specially designed furnaces.

For more information on FPC, contact Larry Buckler of FPC at 213 468-1574.

# UDIO SPOTLIGHTS ION

cling waste from "take one." Since 1991, the company has reduced its administrative waste (mostly paper) by more than 25 percent, thereby avoiding a total of \$18,000 in hauling fees and \$11,000 in land-filling fees, and earning more than \$6,000 in revenues for recyclable materials each year.

Like most studios, Sony Pictures has a big appetite for paper. In 1993 alone, the studio consumed at least 103 million sheets, or 516 tons, of white office paper. Scripts for movies and TV shows are the largest portion of Sony Pictures' administrative waste. For a single TV program, for example, dozens of copies of a revised script are usually distributed every day. Before the waste reduction program, copies of many scripts were thrown away without ever being read. After rethinking its script distribution system, the studio updated its script distribution list to avoid duplicates and unnecessary copies. In addition, the company began double-sided copying of some scripts—a rare practice in Hollvwood because actors and actresses find it easier to work from onesided scripts.

Donations are another key strategy in Sony Pictures' waste prevention effort. Realizing that its diverse waste stream could be valuable to others, the company decided to distribute its waste materials for reuse. For starters, a large load of wood, plexiglass, paneling, fiberglass, plastic sheeting, and moldingscommon byproducts of movie and television set construction—was donated to a local high school wood shop in 1993. The studio also donates props, scenery, paint, wardrobes, office furniture, and supplies to Materials for the Arts, a city program that links donations with nonprofit arts and cultural organizations.

In 1992, Sony Pictures gave more than 100,000 linear feet of boards from the set of the movie *Hero* to a boys and girls club in northern California, which used



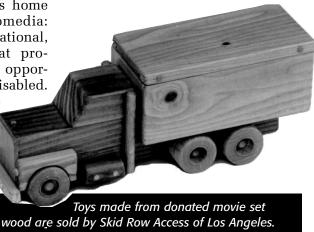
the wood to build a storage facility. The company also donated eight dressing rooms from a defunct TV show to a nonprofit organization that provides job training and experience for young adults. The organization converted the dressing rooms into dorms.

Sony Pictures donates thousands of used videotapes from its home video operations to Ecomedia: Project Fast Forward, a national, nonprofit organization that provides at-home employment opportunities to the severely disabled. Tapes that are in good condition are erased and sold to nonprofit and community-based programs at low cost. Tapes with any sort of defect are disassembled and their plastic parts are ground and sold for recycling.

From 1991 to 1993, Sony Pictures' overall recycling rate jumped from 9 percent to 52 percent. Much of this increase was due to TV and movie set recycling, which increased to 71 percent from 23 percent in a single year. Set waste, which consists primarily of discarded wood construction materials, makes up 69 percent of the nearly 4,000 tons of waste the studio generates each year. Sony Pictures began working with a company call Re-Sets (see article on page 8) in 1992 to recycle wood waste from sets.

Through a company-wide recycling program, Sony Pictures collects corrugated, aluminum, glass, fax and laser cartridges, video cassettes, kitchen grease, steel cans and film storage canisters, computer equipment, and wood pallets. The company's buy-recycled program includes bathroom tissue and paper towels made from recycled office paper, as well as recycled plastic park benches and a variety of recycled papers.

For more information on Sony Pictures' waste reduction efforts, contact Rosanne Feild of Sony Pictures Entertainment at 310 280-4510.



### Movie Set Wood: The Sequel

Torrance, California, company called Re-Sets collected and processed more than 11,000 tons of wood from used Hollywood sets last year—enough to build approximately 500 average-size (1,800 square feet) single-family homes.

Studios often build and tear down several dozen sets and stages during the filming of a single TV show or movie, generating hundreds of tons of used, high-quality wood. Set wastes from a major motion picture can practically double a studio's normal waste flow.

Four years ago, brothers-in-law David Issac and Jeryl Pinkert launched Re-Sets to salvage set and stage wood. The company now collects set wood from most of the major Hollywood studios (including Sony Pictures) for a removal fee comparable to the disposal fee studios used to pay to have the wood landfilled. The wood is then sorted by size and marketed to furniture, crate, and

pallet manufacturers at a price much lower than new lumber. Re-Sets also donates wood to organizations such as Habitat for Humanity, to help build lowincome housing, and Skid Row Access, for toy manufacturing.

There are hurdles to reclaiming set wood, however. While most of the wood is no more than a few months old, it is often riddled with heavy-duty staples.

Most studios use staples instead of nails because they are quicker to put in place. One eight-foot long 2" x 4" board, for example, can contain as many as 40 staples—all of which must be removed with a hand tool. Often the wood must also be stripped of paint.

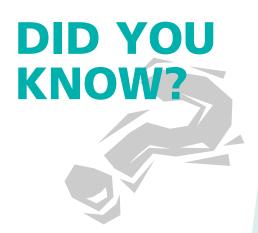
One of Re-Sets' main customers is SpinOffs—a company started by Jeryl Pinkert that converts used wood from Hollywood sets into limited edition furniture. Displayed at SpinOffs showroom, for example, are a dining table from the set of the movie Higher Learning, a coffee table from True Lies, and a desk from Little Rascals.



This furniture was made from wood used on the sets of recent movies such as Speechless, True Lies, and Congo.

After a set is torn down, Spin-Offs works with a specially trained Re-Sets crew to identify and keep track of the origin of each piece of wood. That way, customers can be sure they're buying a chair, bed, or table from the set of their favorite movie. In the showroom, the furniture is grouped together by movie. Spin-Offs produces about 25 pieces of furniture from a single dismantled movie set. In 1995, the company expects to convert at least six tons of Re-Sets wood into furniture.

For more information on Re-Sets, contact David Isaac at 818 716-2335. For more information on SpinOffs, contact Jeryl Pinkert at 818 350-4410.



ccording to Miss Manners, it's okay to cross out an old address and write a new one on your stationery and business cards as a sensible way of avoiding waste. "Etiquette tends to shy away from extravagance," she says.

Josephine Doe

Josephine Doe

A56 Any Street

Anytown, VA 20000

123 Main Street

Smalltown, VA 23000

Phone: 703/999-9999

Fax: 703/999-9998

John Doe

roduction Assistant

200//23-4567
200//23-4568
Phone: 703/501-0000

A 12345

E Inc.

#### Forum To Beam Up Solid Waste Information

o foster a nationwide discussion on unit-based pricing and full cost accounting, EPA is sponsoring a satellite videoconference on September 21, 1995. Broadcast from Washington, DC, the forum will be accessible through downlink sites in 10 cities, home to each of EPA's regional offices: Boston, Massachusetts; New York, New York; Philadelphia, Pennsylvania; Atlanta, Georgia; Chicago, Illinois; Dallas, Texas; Kansas City, Kansas; Denver, Colorado; San Francisco, California; and Seattle, Washington.

Unit-based pricing (UBP) is a system under which residents pay for waste management services according to how much waste they place at the curb. This system offers an economic incentive to reduce trash, and it equitably distributes the cost of solid waste services—the people who generate the most pay the most.

Full cost accounting (FCA) helps decision-makers identify, assess, understand, and report the full costs (i.e., past, present, and future costs) of solid waste management. By knowing what a program really costs to operate, solid waste-managers can make more informed decisions about their programs. Communities implementing UBP can use FCA to help determine the appropriate rate structure. FCA also can help a community decide to privatize solid waste services or expand a recycling program, for example.

At the forum, UBP and FCA experts will discuss these concepts, explain their benefits, and examine implementation issues. People in attendance in each city can call in and ask questions.

For information on the specific location and time of the forum in each of the above cities, call the Eastern Research Group Hotline at 617 674-7374.



### Roundtable Honors Charter Endorsers

f you're a member of a national trade association, don't be surprised if your association begins touting the environmental and economic benefits of waste reduction.

Chances are pretty good that your association is one of 25 Charter Endorsers that have committed to promote waste reduction through EPA's WasteWi\$e program. These Endorsers, which represent many of the country's largest manufacturers, retail-

ers, and service firms, have agreed to promote WasteWi\$e to their member companies and work with them to identify waste reduction strategies.

To recognize the leadership of these associations, EPA held a roundtable meeting May 16 in Washington, DC. This first meeting with the Charter Endorsers served as a forum for ideas to promote waste reduction to association members.



Lynda Wynn and Robin Moran of EPA's WasteWi\$e program discuss ways to promote waste reduction with WasteWi\$e Endorsers.

During the roundtable, endorsers exchanged information on ways they are working with their members to spur waste reduction. For example, the Direct Marketing Association, as part of its Environmental Stewardship Challenge, encourages members to reduce waste through mailing list management and other practices. The Polystyrene Packaging Council has set a goal to bring 50 percent of its member companies into WasteWi\$e and to begin emphasizing waste prevention and packaging redesign to its members.

EPA is proud of the initiative the Charter Endorsers have taken to spur their partners on to additional environmental progress. To express this sentiment, Jim Matthews, Deputy Assistant Administrator for EPA's Office of Solid Waste and Emer-

gency Response, congratulated the Endorsers and thanked them for their leadership.

Overall, the Charter Endorsers found the meeting to be an excellent networking opportunity and asked that EPA host a similar meeting on an annual basis.

For more information about the WasteWi\$e Endorser Program, call 1-800-EPA-WISE.



Jill Tanis of the Food Marketing Institute and Chet Dalzell of the Direct Marketing Association exchange waste reduction strategies.

# RESOURCES

Germany, Garbage,

and the Green Dot

Challenging the

Bette K. Fishbein

Case Reopened

David Saphire

Reassessing Refillable Bottles

Throwaway Society

### **INFORM's Latest Reports** on Solid Waste

With EPA funding, INFORM, Inc., a nonprofit environmental organization, research developed four new reports on municipal solid waste topics. To order any of these reports, send payment (prices are given below)

plus \$3 postage and handling for one and report \$1 postage and handling for any additional reports to: INFORM, Inc., 120 Wall Street, 16th Floor, New York, NY 10005-4001, or call 212 361-2400.

#### **Germany's Green Dot System**

INFORM has published a comprehensive report on the German system for handling packaging and product waste called Germany, Garbage, and the Green Dot: Challenging the Throwaway Society (\$25). Germany's "green dot" system aims to reduce waste by placing responsibility for the final disposition of products and packaging with producers and

This report covers everything you want to know about the German system, including a list of questions for U.S. policymakers to consider when determining if there are any lessons to be learned from the green dot. The report puts in perspective the special circumstances that led Germany to the development of this system. A complete copy of the German legislation that created the system appears in an appendix.

#### To Refill or Not To Refill INFORM

According to another INFORM report, Case Reopened: Reassessing Refillable Bottles (\$25), many of today's glass beer and soft drink bottles can be refilled 35 times, plastic soft drink bottles 25 times, and plastic milk bottles up to 100 times. INFORM researchers

looked at refilling as a waste reduction method in conjunction with recycling. When refillable bottles reach a point where they can no longer be reused, the report suggests recycling them.

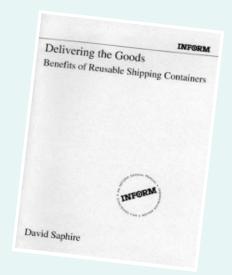
> The report also describes government policies and company initiatives to promote

the use of refillable bottles. Two case studies are provided in the report: a company that uses refillable beer bottles and a company that uses refillable soda and milk bottles.

#### **Reusable Shipping Containers**

A growing number of companies are discovering reusable shipping containers. That's the subject of a new INFORM report called Delivering the Goods: Benefits of Reusable Shipping Containers (\$20). Nearly 26 million tons of corrugated cardboard were thrown out in 1993—about 186 pounds for every person in the United States. Switching to reusable containers offers the potential of major reductions in the amount of solid waste requiring disposal. It also offers businesses potential cost-savings.

The INFORM report shows how the process of shifting to reusable shipping containers can work. It describes situations in which reusable shipping containers are used today, methods for overcoming any obstacles in switching to these containers, and options available to both industry and government for expanding their use.



distributors.



#### Source Reduction in the Big Apple

vey conducted by INFORM indicates that source reduction could save the state of New

could save the state of New York up to \$750 million in annual waste disposal costs and could reduce its solid waste load by 3.75 million tons.

Results of the survey, entitled Source Reduction of Municipal Solid Waste in New York State (\$5), indicate that although a variety of state-sponsored source reduction programs are currently in place, only 1 percent of the state's solid waste budget is directed toward these initiatives.

The survey was sent to managers of the state's 65 solid waste planning units. Survey participants were asked to outline their source reduction strategies and goals, to indicate how they measure their source reduction progress, and to identify the most important issues surrounding source reduction in their districts.

In addition, respondents cited several roadblocks to state source reduction programs including inadequate reporting and measurement methods, a lack of outside assistance and model programs, and a need for standard definitions of source reduction terms. (See page 10 to order.)

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(Continued from page 1)

government procuring agencies need to develop procurement programs. These products include some of the items most frequently purchased by federal agencies, such as office supplies, automotive products, and construction materials. The CPG also consolidates the five items covered in previous procurement guidelines, making it the primary federal document addressing recycled-content purchasing.

The RMAN provides more detailed recommendations to help government agencies actually purchase the products designated in the CPG. It also lists the ranges of recovered material content within which designated items are commercially available. On March 15, 1995, EPA made available for public review a second RMAN dealing exclusively with paper and paper products. (See the Spring 1995 issue of *Reusable* News.) After reviewing public comments on this proposed RMAN, EPA will issue a final paper products RMAN. EPA will continue to issue updates to the CPGs and RMANs as new recycled products are introduced.

Federal agencies and others have until May 1, 1996, to review specifications for the new items designated in the CPG. By that date, agencies must eliminate provisions that pose a barrier to procurement of products containing recovered materials (e.g., aesthetic requirements unrelated to product performance). As of that date, agencies must also begin to buy the recycled-content items designated in the CPG whenever practical.

EPA responded to over 300 comments received after the CPG was proposed in April 1994 (see the insert, number EPA530-N-94-003b in the Spring 1994 issue of Reusable News). By finalizing the CPG, EPA has met a major responsibility under Executive Order 12873 and Section 6002 of the Resource Conservation and Recovery Act (RCRA). The accompanying RMAN provides current and detailed information to make it easier for federal agencies and others to buy many different types of recycled products. Increased purchasing of recycled products, in turn, encourages manufacturers to step up their use of materials collected in recycling programs instead of virgin raw materials.

# Procurement Guideline and RMAN Available On Line

fact sheet, the CPG, the RMAN, and supporting analyses are available in electronic format through EPA's Public Access Server at gopher.epa.gov. For the CPG and RMAN, choose: Rules, Regulations, and Legislation, then Waste Programs/EPA Waste Information-GPO; and finally, Year/Month/Date. The fact sheet and supporting analyses can be found under EPA Offices and Regions/Office of Solid Waste and Emergency Response (OSWER)/Office of Solid Waste/Nonhazardous Waste/Procurement/General. For hard copies and additional information, call the RCRA Hotline at 800 424-9346 or TDD 800 553-7672; in the Washington, DC, area, call 703 412-9810 or TDD 703 412-3323.

### **Design Today To Recycle Tomorrow**

t's not unusual to find engineering students in Grand Rapids, Michigan, knee-deep in recyclable parts from hand mixers and toaster ovens. Taking apart household appliances to assess their

design and ease of recyclability is just one exercise in a new curriculum at Grand Valley State University. The curriculum, called Design for Recycling: Solving Tomorrow's Problems Today, strives to foster the foresight, ethics, and engineering skills necessary to design

more readily recyclable products.

The concept of Design for Recycling entails the deliberate design and manufacture of goods for safe and efficient recycling at the end of their useful lives. Hazardous and nonrecyclable materials are minimized or eliminated from the production process and from the products themselves.

Grand Valley's curriculum teaches that a product's final resting state (whether it is disposed of or recycled) is primarily the responsibility of the engineers who design it. After all, recyclers can't recycle a product that is composed of nonrecyclable materials, that has many different materials, or is not easily disassembled for recycling. Grand Valley State University is one of a growing number of engineering schools that integrate Design for Recycling principles into their coursework.

"Our goal is to reach a point where environmentally responsible design is squeeze it, responsibly an assumed element of every product, like structurally responsible design is now," said Dr. -Dr. Shirley Fleischmann Fleischmann, associ-

Shirley

ate professor of engi-

neering at Grand

"Just like a good glass

mug doesn't break

into shards when you

designed products

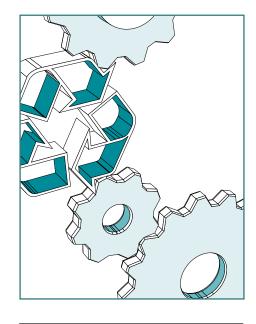
should have minimal

impact on the

environment."

Valley. "Just like a good glass mug doesn't break into shards when you squeeze it, responsibly designed products should have minimal impact on the environment as well."

For more information on the Design for Recycling curriculum, contact Dr. Shirley Fleischmann of the School of Engineering at Michigan's Grand Valley State University at 616 771-6761.



**R**EUSABLE NEWS is the quarterly newsletter of the EPA Office of Solid Waste's Municipal and Industrial Solid Waste Division. Reusable News reports on the efforts of EPA and others to safely and effectively manage the nation's garbage and provides useful information about key issues and concerns in municipal solid waste management.

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